

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended) An interconnect assembly for a solid oxide fuel cell, comprising:

a separator plate having two opposed surfaces; and
at least one electron conducting ~~compliant~~
interconnect in electrical communication with the separator plate, the ~~compliant~~ interconnect comprising a ~~compliant~~ superstructure having a first portion defining a separator plate contact zone and a second portion defining an electrode contact zone, wherein the superstructure is porous to operating fuel cell gaseous materials, and wherein the interconnect comprises a woven substructure formed into a superstructure defining the separator plate contact zone and the electrode contact zone.

2. (Canceled) The assembly of claim 1, wherein said compliant superstructure is compliant in at least three orthogonal axes.

3. (Canceled) The assembly of claim 1, wherein said compliant superstructure is compliant with respect to a load applied from any direction.

4. (Currently amended) The assembly of claim 1, wherein said ~~compliant~~ superstructure comprises a first plurality of ~~compliant~~ substructures disposed in a first direction and a second plurality of ~~compliant~~ substructures

disposed in a second direction different from said first direction so as to define a woven structure.

5. (Currently amended) The assembly of claim 4 wherein at least one ~~compliant~~ substructure is pre-buckled.

6. (Currently amended) The assembly of claim 4 wherein said ~~compliant~~ substructures comprise wires, and wherein said woven structure is a wire weave.

7. (Currently amended) The assembly of claim 4 wherein said ~~compliant~~ substructures comprise pre-buckled wires, and wherein said woven structure is a wire weave.

8. (Currently amended) The assembly of claim 4 wherein said ~~compliant~~ superstructure is dimpled, and wherein further a first plurality of dimples define said separator plate contact zone and a second plurality of dimples define said electrode contact zone.

9. (Original) The assembly of claim 8 wherein said first plurality of dimples extend substantially opposite to said second plurality of dimples.

10. (Original) The assembly of claim 1 wherein said interconnect is a cathode-side interconnect.

11. (Original) The assembly of claim 1 wherein said interconnect is an anode-side interconnect.

12. (Original) The assembly of claim 1, wherein said superstructure has a compliance of at least about $5 \times 10^{-6} \text{ mm}^2/\text{N}$.

13. (Original) The assembly of claim 1, wherein said superstructure has a compliance of at least about $5 \times 10^{-5} \text{ mm}^2/\text{N}$.

14. (Original) The assembly of claim 1, wherein said superstructure has a compliance of at least about $5 \times 10^{-4} \text{ mm}^2/\text{N}$.

15. (Currently amended) The assembly of claim 1, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially orthogonal channel.

16. (Currently amended) The assembly of claim 1, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially slanted channel.

17. (Currently amended) The assembly of claim 1, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially square channel.

18. (Currently amended) The assembly of claim 1, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially rectangular channel.

19. (Currently amended) The assembly of claim 1, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially sinusoidal channel.

20. (Currently amended) The assembly of claim 1, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially hour-glass shaped channel.

21. (Currently amended) The assembly of claim 1, wherein said ~~compliant~~ superstructure is comprised of a stainless steel, stainless steel alloy, or stainless steel super-alloy.

22. (Currently amended) The assembly of claim 1, wherein said ~~compliant~~ superstructure is comprised of a chromium-based alloy.

23. (Currently amended) The assembly of claim 1, wherein said ~~compliant~~ superstructure is comprised of a noble metal-based alloy.

24. (Currently amended) The assembly of claim 1, wherein said ~~compliant~~ superstructure is comprised of a composite of at least two materials.

25. (Currently amended) An interconnect for a solid oxide fuel cell, comprising: a ~~compliant~~ superstructure having a first portion defining a separator plate contact zone and a second portion defining an electrode contact zone, wherein the superstructure is porous to operating

fuel cell gaseous materials, and wherein the interconnect comprises a woven substructure formed into a superstructure defining the separator plate contact zone and the electrode contact zone.

26. (Canceled) The apparatus of claim 25, wherein said compliant superstructure is compliant in at least three orthogonal axes.

27. (Canceled) The apparatus of claim 25, wherein said compliant superstructure is compliant with respect to a load applied from any direction.

28. (Currently amended) The apparatus of claim 25, wherein said ~~compliant~~ superstructure comprises a first plurality of ~~compliant~~ substructures disposed in a first direction and a second plurality of ~~compliant~~ substructures disposed in a second direction different from said first direction so as to define a woven structure.

29. (Currently amended) The apparatus of claim 28 wherein at least one ~~compliant~~ substructure is pre-buckled.

30. (Currently amended) The apparatus of claim 28 wherein said ~~compliant~~ substructures comprise wires, and wherein said woven structure is a wire weave.

31. (Currently amended) The apparatus of claim 28 wherein said ~~compliant~~ substructures comprise pre-buckled wires, and wherein said woven structure is a wire weave.

32. (Currently amended) The apparatus of claim 28 wherein said ~~compliant~~ superstructure is dimpled, and wherein further a first plurality of dimples define said separator plate contact zone and a second plurality of dimples define said electrode contact zone.

33. (Original) The apparatus of claim 32 wherein said first plurality of dimples extend substantially opposite to said second plurality of dimples.

34. (Original) The apparatus of claim 25 wherein said interconnect is a cathode-side interconnect.

35. (Original) The apparatus of claim 25 wherein said interconnect is an anode-side interconnect.

36. (Original) The apparatus of claim 25, wherein said superstructure has a compliance of at least about 5×10^{-6} mm²/N.

37. (Original) The apparatus of claim 25, wherein said superstructure has a compliance of at least about 5×10^{-5} mm²/N.

38. (Original) The apparatus of claim 25, wherein said superstructure has a compliance of at least about 5×10^{-4} mm²/N.

39. (Currently amended) The apparatus of claim 25, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially orthogonal channel.

40. (Currently amended) The apparatus of claim 25, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially slanted channel.

41. (Currently amended) The apparatus of claim 25, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially square channel.

42. (Currently amended) The apparatus of claim 25, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially rectangular channel.

43. (Currently amended) The apparatus of claim 25, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially sinusoidal channel.

44. (Currently amended) The apparatus of claim 25, wherein said ~~compliant~~ superstructure is shaped to include at least one substantially hour-glass shaped channel.

45. (Currently amended) The apparatus of claim 25, wherein said ~~compliant~~ superstructure is comprised of a stainless steel, stainless steel alloy, or stainless steel super-alloy.

46. (Currently amended) The apparatus of claim 25, wherein said ~~compliant~~ superstructure is comprised of a chromium-based alloy.

47. (Currently amended) The apparatus of claim 25, wherein said ~~compliant~~ superstructure is comprised of a noble metal-based alloy.

48. (Currently amended) The apparatus of claim 25, wherein said ~~compliant~~ superstructure is comprised of a composite of at least two materials.

49. (Currently amended) A solid oxide fuel cell stack comprising:

at least three fuel cell assemblies in electrical contact, wherein at least one fuel cell assembly comprises an electrode, a separator plate, and a ~~compliant~~ interconnect positioned between the electrode and the separator plate, the ~~compliant~~ interconnect comprising a ~~compliant~~ superstructure having a first portion defining a separator plate contact zone and a second portion defining an electrode contact zone, wherein the superstructure is porous to operating fuel cell gaseous materials, and wherein the interconnect comprises a woven substructure formed into a superstructure defining the separator plate contact zone and the electrode contact zone.

50. (Canceled) The apparatus of claim 49, wherein said compliant superstructure is compliant in at least three orthogonal axes.

51. (Canceled) The apparatus of claim 49, wherein said compliant superstructure is compliant with respect to a load applied from any direction.

52. (Currently amended) The apparatus of claim 49, wherein said ~~compliant~~ superstructure comprises a first plurality of ~~compliant~~ substructures disposed in a first direction and a second plurality of ~~compliant~~ substructures disposed in a second direction different from said first direction so as to define a woven structure.

53. (New) The assembly of claim 1, wherein the superstructure has a substantially sinusoidal cross section along at least two different lines in a plane of the superstructure.

54. (New) The apparatus of claim 25, wherein the superstructure has a substantially sinusoidal cross section along at least two different lines in a plane of the superstructure.

55. (New) The apparatus of claim 49, wherein the superstructure has a substantially sinusoidal cross section along at least two different lines in a plane of the superstructure.

56. (New) The assembly of claim 1, wherein the interconnect further comprises connecting portions between the first contact surfaces and the second contact surfaces, wherein the connecting portions extend away from the first contact surfaces toward the second contact surfaces, and wherein the connecting portions converge as they extend away from the first contact surfaces.

57. (New) The apparatus of claim 25, wherein the interconnect further comprises connecting portions between the first contact surfaces and the second contact surfaces, wherein the connecting portions extend away from the first contact surfaces toward the second contact surfaces, and wherein the connecting portions converge as they extend away from the first contact surfaces.

58. (New) The apparatus of claim 49, wherein the interconnect further comprises connecting portions between the first contact surfaces and the second contact surfaces, wherein the connecting portions extend away from the first contact surfaces toward the second contact surfaces, and wherein the connecting portions converge as they extend away from the first contact surfaces.